

and crossed by strong, low, broad, retractively slanting axial ribs which evanesce on the base. The sinial area shows a few incised spiral lines, while the entire rest of the surface bears feeble, rather distantly spaced, spiral threads which become intensified on the base and columella. Suture well impressed. Base moderately rounded. Columella short and stout. The aperture is ovate. The outer lip with a deep posterior V-shaped sinus below the summit; anterior canal rather broad; inner lip reflected over the columella and parietal wall as a heavy callus which may be somewhat thickened at the posterior angle of the aperture. Operculum small, oval, with a low ridge on the right side and apical nucleus, marked on the outside by concentric lines of growth. Radula with Y-shaped marginals only.

Type: *Burchia redondoensis* (Burch) (= *Pseudomelatoma seminflata redondoensis* Burch).

Here I am likewise placing *Burchia clionella* (Dall) (= *Leucosyrinx ? clionella* Dall) described in 1908 in the Bulletin of the Museum of Comparative Zoology, volume 43, page 270. The type, U.S.N.M. No. 123125, of this species was dredged by the U. S. Bureau of Fisheries steamer *Albatross* at station 3394 in the Gulf of Panama in 511 fathoms. An additional series of specimens, U.S.N.M. No. 97069, was dredged by the *Albatross* at station 2792 off Manta, Ecuador, in 401 fathoms. These specimens agree in radular characters as well as shell appearance with Burch's species.

TAXONOMIC HEADACHES

By PAUL BARTSCH

"The Sphaeriidae, a Preliminary Survey," Brooks and Herrington, *Nautilus*, vol. 57, pp. 93-97, is most interesting and I hope as the title indicates will result in their preparation of a summary volume upon this family.

Shortly after coming to Washington, almost a half century ago, we had a visit from Dr. Sterki, and the two of us in our leisure hours combed the streams about the nation's capital for fresh-water mollusks. This gave me an excellent opportunity of becoming acquainted not only with Sterki as the man (a lovable character) but his wide knowledge as a field naturalist and a laboratory worker. His knowledge was not confined to Mol-

lusea but he was equally versed in Protozoa as attested by many of his observations published in Bronn, Die Klassen und Ordnungen des Tierreichs, vol. 1, Protozoa, by O. Bütschli.

About a quarter of a century later, when a great deal of the miscellaneous determinations we are called upon to make, fell upon my shoulders, I came to realize that our collections of *Sphaerium*, *Pisidium* and similar folk were in a chaotic nomenclatorial state and I prevailed upon Dr. Dall to persuade Dr. Sterki, who was at that time deemed the only man who really knew the subject, to come to Washington and revise our collection, which he did.

A lot of this material he seemed to easily allocate; a lot he asked to be sent to him for more detailed study. Some of this was returned definitely determined by him, and some with "?"

Dr. Sterki possessed unique eyes, eyes that were not confocal so that when critical comparison requiring low power magnification was made he would shove his spectacles upon his forehead and hold the specimens within a couple of inches of his right eye, attaining thereby a considerable magnification—a decided advantage over the ordinary mortal. I am mentioning this fact which I believe has not before reached print.

In the years following his revisional visit, we sent him all things that stumped me in the groups in question, of which quite a bit became type material. This brings me to another phase of Sterki: In spite of all my urging to have him designate a type and type locality, most of his species were described without this, and given a wide zoogeographical range. This distribution seemed in many instances almost fantastic.

Since then, however, a new phase of *Ornithology*, Bird Banding, has developed, in which I believe I put forth the first effort in America, and this has resulted in the acquisition of an immense amount of information, covering, among other things, the flyways of our waterfowl, ducks, herons and waders, which in turn throws a flood of light upon the distribution of those small bivalves and other aquatic things carried from place to place by these birds.

I hope when Brooks and Herrington begin plotting the distribution of the species, subspecies, etc., they may have a flyway chart before them and check its bearing upon this distribution

problem. It is interesting in this connection to note how some of our waterfowl still follow the westward course at the foot of the glaciers of long ago, when they proceed westward from the eastern seaboard.

Then there is a second problem, probably the much greater, namely, the question of hybridization. This, when specifically distinct species are able to mate, appears to produce not Mendelian features such as we get in intraspecific crossings, but an endless number of variants most of which, as far as experiments in mollusk breeding show, are evanescent, but some are capable of continuing their kind. Some of these mutating complexes occupy limited areas and may be the result of a mixing of an immigrant waif with a local race. It seems to me what is necessary in the study of these small bivalves is the gathering of a large series of specimens (not a few isolated individuals as usually reach the Museum taxonomists) to see how fixed or variable the forms from each locality may be. Experimental breeding also seems indicated. Finally I am mindful that when one uses aquaria, in many cases a depauperization occurs in succeeding generations due to possibly a change in P_h or food, or a combination of other ecologic factors. I can't help but feel that immigrants brought into new environments may respond similarly.

The working laboratory taxonomist pondering upon the whence and why does not face an easy task in endeavoring the fixation of a name that is to hold for all time to come.

The geologic record, interesting as it may be, will furnish more factors but not a complete solution, for the days of yesterday presented problems with as many ramifications and interdigitations as the problems of today.

PERUVIAN LAND MOLLUSCA—II

By HENRY A. PILSBRY

The following snails were selected as new from a long series of Peruvian species sent by Dr. W. Weyrauch of Lima. They were collected by him during travels in the interior in the course